



**UNITED STATES MARINE CORPS**

MARINE CORPS BASES JAPAN  
CAMP SMEDLEY D. BUTLER, OKINAWA  
UNIT 35001  
FPO AP 96373-5001

IN REPLY REFER TO:

5090

FE/EAB/28136

2 Dec 10

MEMORANDUM

From: Manager, Environmental Management System (EMS)  
To: Distribution List

Subj: COMMANDER'S ENVIRONMENTAL AND ENERGY MANAGEMENT REVIEW  
BOARD MEETING MINUTES

Ref: (a) MCO P5090.2A  
(b) MCBJO 5090.1B  
(c) MCBJO 5090.3A  
(d) MCBJ EMS Manual

Encl: (1) Agenda  
(2) Attendance Roster

1. Per the references, the Commander's Environmental and Energy Management Review Board (CEEMRB) meeting was held on Tuesday, 23 November 2010 at the Base Emergency Operations Center, Bldg 1C, Camp Foster. The agenda is contained in enclosure (1) and a list of attendees is contained in enclosure (2). Combined Arms Training Center (CATC) Camp Fuji, Marine Corps Air Station (MCAS) Iwakuni, and Marine Forces Pacific participated via video teleconference.

2. Meeting. The meeting began at 0840. (b)(6) started the meeting by announcing that energy and environmental management are two areas that Commanders cannot pay enough attention to. The following was briefed by (b)(6) Environmental Officer.

a. An internal Environmental Compliance Evaluation (ECE) is conducted annually except for every third year when an external (benchmark) ECE is conducted by Headquarters Marine Corps (HQMC). The FY10 ECE for MCB Butler, MCAS Futenma, and CATC Camp Fuji was an internal ECE. During the FY10 internal ECE, MCB Butler and MCAS Futenma received assistance from the U.S. Environmental Protection Agency. As requested by CATC Camp

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Fuji personnel, Camp Fuji conducted their self-ECE without assistance from MCB Butler in FY10. HQMC conducted a benchmark ECE of MCAS Iwakuni in April 2010. Internal ECEs will be conducted at all MCBJ installations in FY11. HQMC will conduct a benchmark ECE of MCB Butler and MCAS Futenma in January 2012.

b. The FY10 ECE identified deficiencies with several plans. The following plans are being prepared /updated including: Spill Prevention Control & Countermeasures Plans (2 completed), Pest Management Plan, Potable Water Master Plan (4 completed), Fuel Tank Management Plan, Stormwater Management Plan, Asbestos Management Plan, Comprehensive Environmental Training & Education Program Plan, and Natural Disaster Plan. Both HQMC and EPA noted that MCB Butler does not have adequate staffing of the Natural Resources Program to effectively support wetlands and range sustainment.

c. Hazardous materials (HM) deficiencies noted during the ECE included containers without labels and Material Safety Data Sheets that did not match HM being used. Hazardous waste (HW) deficiencies included open containers of HW, no secondary containment for liquid HW, unknown HW in containers, and containers that were not in good condition. Solid waste deficiencies included recyclables mixed with trash and waste batteries mixed with trash.

d. A total of \$1.925M was funded by HQMC for the following environmental projects: MV-22 Noise Study, Soil Survey, Wetlands Survey, MV-22 Environmental Review, GIS Contractor Support, and Radon Testing and Mitigation.

e. The Qualified Recycling Program (QRP) is still not meeting mandated goals, but is close. Environmental took the program over from MCCS in 2007. Environmental instituted a competitive bid process resulting in higher prices per kilogram. Recycling increased from 1,300 tons in FY07 to 2,500 tons in FY10. Per Marine Corps Order, a QRP Committee must be formed and meet annually. Environmental will coordinate a committee meeting early next quarter. The price of recyclables dropped considerably in the last few years. Problems arise with recyclables mixed with trash especially at recycle containers located at common areas and MCCS events because there is nobody assigned to monitor these locations.

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f. The QRP account status was reviewed. In FY11, it is estimated that nearly \$600K in vehicles and equipment will need to be recapitalized. FY11 sales are expected be approximately \$900K, leaving nearly \$600K in the QRP account to pay for FY12 salaries.

g. Several QRP issues were discussed. Barracks residents fail to properly segregate recyclables. Pizza boxes are no longer recycled because these boxes were being turned in with pizza waste still in them. Recyclable cans and bottles are turned in with tobacco spit in them. The CEEMRB was reminded that all recyclables are hand-sorted by Marine Corps employees. (b)(6) stressed the importance of proper recycling to meet mandated goals.

h. The CEEMRB agreed to continue with the current (b)(6) Commander's Environmental Policy Statement signed by (b)(6) in Oct 2009.

i. FY10 Objectives and Targets:

(1) The target related to the objective to reduce the impact of solid waste generation was not achieved. A guide book detailing procedures on how to minimize waste generation and the proper disposal of various types of solid waste was drafted, but not finalized. The guidebook will be completed after the updated Japan Environmental Governing Standards (JEGS) is issued by USFJ.

(2) Only one target for the objective to reduce electricity use in buildings was achieved. An Energy Savings Performance Contract (ESPC) contractor was selected in FY10. Energy audits were completed on only 10% of facilities in FY10 instead of the targeted 25% because energy audit training was not conducted until October 2010. Advanced electric meters were not installed in FY10, but a 200-building network is planned and equipment is arriving. The installation of the advanced meters and network will begin in December 2010 and completion is planned for September 2011. Documentation for an interagency agreement with the Department of Energy (DoE) is still in draft; however, DoE provided training on Okinawa twice in FY10.

(3) Vehicle fuel consumption was reduced by approximately 2% instead of the targeted 3%, but the Drive Green Campaign led by (b)(6), GME Operations Officer, was successful. The number of fossil fuel vehicles was reduced through Right Sizing the Fleet (MCBJ Policy Letter 6-09). An

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anti-idling campaign was implemented (MCBJ Policy Letter 6-10). The use of The Green Line bus service was maximized using an informational/promotional campaign. Twenty-four electric vehicles were introduced into the fleet. GME in-service vehicles were monitored at checkpoints to address idling and unofficial use of vehicles.

(4) The objective to reduce impact of leaks and spills from vehicle operations was achieved. A procedure to inspect and track spill kit usage in tactical vehicles was developed and implemented.

j. The following FY11 objectives and targets were approved by the CEEMRB:

(1) Objective: Reduce the impact of solid waste generation. The targets include:

(a) Divert 50% of non-hazardous solid waste from the waste stream by FY15 (FY11 Target: 42%).

(b) Divert 60% of construction and demolition debris from the waste stream by FY15 (FY11 Target: 52%).

(2) Objective: Reduce electricity use in buildings. The targets include:

(a) Reduce energy intensity of facilities by 37.5% by FY20 using FY03 as baseline (FY11 Target: 3% reduction from FY10).

(b) Produce or procure 18.3% of energy consumed by facilities from renewable sources by FY20 (FY11 Target: Complete design for ECIP photovoltaic projects).

(3) Objective: Reduce vehicle fuel consumption and air emissions. The target is: Reduce use of petroleum products by vehicle fleets by 30% by FY20 using 2005 as baseline (FY11 Target: 4% from FY10).

k. The following energy projects were briefed:

(1) MCBJ (less Iwakuni) was first within DoN to submit a Site Data Package for a DoE Super Energy Savings Performance Contract. Clark Energy Group will fund, design, and construct energy conservation projects and receive payment through annual energy savings realized. <sup>(b)(6)</sup> will conduct investment

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grade audits during Nov-Mar. The focus of the ESPC is on upgrades (HVAC, boilers, windows, lighting, water, etc.) to approx 200 large buildings. A renewable component may include wind turbines, solar panels, and ground source heat pumps. A proposal expected by Jul 2011.

(2) Completed Energy Project: Thermal coating to Foster barracks (Bldg 470 and Bldg 473) was funded for \$270K and completed in 2010. Data shows a savings of approximately \$18K/year for Bldg 470 where the whole bldg was coated. The same coating is being tested at Camp Fuji this FY for cold climate conditions.

(3) Proposed Energy Initiatives:

(a) Resource Efficiency Manager (REM) contract - \$225K in FY11.

(b) GIS analyst for utility management contract - \$200K in FY11.

(c) DoE energy management training support- \$200K in FY11.

(d) Net-zero study at Ie Shima and JWTC - \$130K via Army Corps in Huntsville, Alabama.

(4) In-Progress Energy Initiatives Using Energy Investment Program (EIP):

(a) High efficiency upgrade to Camp Hansen sewage treatment plant (Design) - \$266K, Mar 2011.

(b) Automated billing integrated with advanced metering system - \$330K, Mar 2011.

(c) Advanced metering installed at approximately 200 buildings - \$4.1M, Sep 2011.

(d) Wind generator at Bldg 1 - \$275 K, Dec 2011.

(e) Photovoltaic installation at the Foster Shopette (Bldg 464) and Food Court (Bldg 1002) - \$402K, Dec 2011.

(f) Advanced building controls in Bldg 363 and West Pac (Bldg 14) - \$1.1M, Jan 2012.

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(5) Proposed Energy Projects (EIP):

(a) Priority 1 - Green roofs (grass, moss) -for two buildings (bldgs 363 and 225) - \$545K - Design complete FY09, requesting FY11

(b) Priority 2 - High efficiency upgrade to Camp Hansen sewage treatment plant (Construct) - \$924K (FY11). Anticipate construction completion by Jun 2012

(c) Priority 3 - Design funds for five electric vehicle solar-powered charging stations, \$2.5M. Anticipating award and construction in FY12

(6) Proposed Energy Projects Using Energy Conservation Improvement Program (ECIP): \$14M was requested to install photovoltaic panels on rooftops in FY12.

(7) Energy Conservation Status: Currently we are not meeting mandated energy reduction goals. We hope to see a sharp drop in energy consumption in FY13 or FY14 after energy projects are implemented and facilities are upgraded to be more energy efficient. <sup>(b)(6)</sup> noted that a Building Energy Monitor (BEM) program could be implemented now to help us achieve some reductions. A BEM would be assigned to each building and be responsible for completing and submitting energy and water conservation checklists to FE. Two slides from HQMC showed that that MCB Butler's energy costs are the highest in the Marine Corps (over \$49M/year) and our reduction progress is one of the lowest (-1.16%), but our energy usage per square footage is one of the best in the Marine Corps (64.58 MBTU/KSF).

l. MCB Butler's water conservation status was discussed briefly. Currently we are seeing a reduction in water usage, but we are still not meeting water conservation goals. The ESPC will conduct energy and water audits and look for energy conservation measures.

m. Camp Commanders can help by doing the following:

(1) Emphasize the following to your units:

(a) Maintain clean, well managed HM storage and HW accumulation areas.

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(b) Clean small spills quickly and thoroughly and call 911 for large spills or any off-base spills immediately.

(c) Properly dispose of all waste prior to deployment.

(d) Support the recycling program in living and work areas, especially in barracks.

(2) Support MCBJO 5090.3A as follows:

(a) Air conditioning set at 78° -80° C

(b) Turn off computers and other electronics at the end of the day.

(c) Space heaters prohibited unless authorized by MCB Butler FE on Okinawa or the Fuji Facilities Maintenance Officer at CATC Camp Fuji. Hot water is not authorized for laundry facilities in barracks.

(3) Maintain close contact with your camp/station environmental staff.

n. Questions/comments were as follows:

(1) <sup>(b)(6)</sup> noted that hot water systems for all facilities except barracks were shut off in the 1990s. Complaints came in some years later for hot water for shower facilities in offices. He stated that electric hot water heaters were then installed in hundreds of office spaces on Okinawa. According to <sup>(b)(6)</sup> from the Environmental Branch, most requests that come in now for hot water are denied unless there are sanitary concerns or a mission requirement. Energy auditors will look at hot water systems on Okinawa.

(2) <sup>(b)(6)</sup> asked the Marines in the audience if they turned off their computers at the end of the day. It appeared that Marines are not turning off their computers at night. It was noted that even when computers are turned off at the end of the day, they are turned back on remotely by NMCI. This is an issue that will need to be resolved with G6.

(3) <sup>(b)(6)</sup> remarked that the average Marine is not aware of these issues. He noted that getting the word out to them is half the battle.

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(4) (b)(6) noted that we need to look closely at the ESPC and get back to the CG on where we need to focus our efforts. He informed the group that the ESPC will include low-hanging fruit with quick payback along with higher cost items with longer paybacks. However, there may still be some low-hanging fruit that may not be included in the ESPC. We will request EIP or ECIP money for these projects.

(5) (b)(6) stated that barracks recycling issues are still being worked at Camp Schwab, but additional manpower and closer supervision may be required to make the program successful.

(6) (b)(6) stated that barracks managers need to take responsibility ensuring the success of the barracks recycling program.

(7) (b)(6) reported that Camp Hansen solid waste numbers have gone down, but energy and water usage have increased. Without meters on buildings, we can't hold people accountable for the increase.

(8) (b)(6) asked why we were collecting glass and then paying to dispose of it. (b)(6) Recycling Program Manager, clarified that glass must be recycled per Japan law. We pay for (b)(6) to be recycled. It is not collected for disposal. (b)(6) also stated that as we start using electric vehicles, vehicle fuel usage will decrease, but facility electricity usage will increase. It was noted Ms. Matsuzaki is working with (b)(6) to install six or seven solar-powered charging stations for the electric vehicles.

o. The CG concluded the meeting by telling everyone that he understands that this may be painful to hear and painful to do, but it doesn't take away our responsibility. We have to start doing the right thing. This is an area that isn't going away, and he is going to pay a lot of attention to this. Commanders must lead by example. He thanked everyone for attending and noted that it took a lot of hard work to get us where we're at, and it will take a lot more hard work to get us where we need to be. The meeting adjourned at 1015.



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3. The point of contact is <sup>(b)(6)</sup>  
645-0430 or via e-mail at <sup>(b)(6)</sup>

EMS Coordinator, at

Distribution:

CEEMRB Members  
EMS Files



# **Commander's Environmental & Energy Management Review Board (CEEMRB)**

23 November 2010  
(b) (6)

PE

Environmental Officer



# Agenda

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- Environmental update
- Recycling program update
- CG's environmental policy statement
- Status of FY10 Environmental Management System (EMS) objectives and targets
- Proposed FY11 EMS objectives and targets
- Energy conservation update



# Environmental Compliance Evaluations (ECE)

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- FY10 Self-ECE – Butler, Futenma
  - Conducted by the U.S. EPA in June 2010
- FY10 Self-ECE – Fuji
  - Conducted in-house in March 2010
- FY10 Benchmark ECE – MCAS Iwakuni
  - Conducted by HQMC
- FY11 Self-ECEs for all MCBJ
- FY12 Benchmark –ECE – Butler, Futenma
  - Will be conducted by HQMC in January 2012



# FY 10 MCB Butler ECE Results

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- Plans need to be completed/updated:
  - Spill Prevention Control & Countermeasures Plans (2 completed, 1 in final draft)
  - Pest Management Plan (FE updating current plan)
  - Potable Water Master Plan (4 out of 7 completed)
  - Fuel Tank Management Plan (coordinating draft with DLA Energy)
  - Stormwater Management Plan (FE updating)
  - Asbestos Management Plan (Safety update)
  - Comprehensive Env Training & Education Program Plan (draft complete Dec)
  - Natural Disaster Plan (FE will coordinate with G3)
- MCB Butler does not have adequate staffing of the Natural Resources Program
  - Wetlands and range sustainment support



# FY10 MCB Butler ECE Results

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- Hazardous materials (HM) deficiencies
  - No labels on containers
  - MSDSs don't match HM being used
- Hazardous waste (HW) deficiencies
  - Open containers of HW
  - No secondary containment for liquid HW
  - Unknown HW in containers
  - Containers were not in good condition
- Solid waste deficiencies
  - Recyclables mixed with trash
  - Waste batteries mixed with trash



# FY10 ENV Projects Funded by HQMC



<b>Project Title</b>	<b>Current Working Estimate</b>	<b>Estimate Completion Date</b>	<b>Awarded Through</b>
MV-22 Noise Study	\$150K	Mar 2011	NAVFAC SW
Soil Survey	\$100K	Jul 2011	RCO
Wetlands Survey	\$160K	Aug 2011	RCO
MV-22 Environmental Review (will be funded soon)	\$500K	Mar 2012	NAVFAC PAC
GIS Contractor Support - 2 analysts	\$350K	Will continue to request follow-on funding	RCO Camp Pendleton
Radon testing and Mitigation	\$665K	recurring	NAVFAC and DOE
<b>Total</b>	<b>\$1.925M</b>		



# Qualified Recycling Program (QRP)

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- Program still not meeting mandated goals
- Environmental took over program in 2007
- Instituted a competitive bid process resulting in higher prices per kilogram
- Increased recycling from 1,300 tons in FY07 to 2,500 tons in FY10
- QRP Committee must meet annually
- Price of recyclables dropped considerably in the last few years
- No monitoring of recycle containers located at common areas and MCCS events





# QRP Account Status

Year	Sales	Expenses	Gain/(Loss)
FY07 (6 mo)	\$599,478	\$577,729	\$21,749
FY08	\$1,577,541	\$669,430	\$908,111
FY09	\$372,318	\$807,204	(\$434,886)
FY10	\$933,876	\$527,711	\$406,165
FY11 (est)	\$900,000	\$1,200,000	(\$300,000)
Total	\$4,383,213	\$3,782,074	\$601,139

- Need to recapitalize approx \$1.5M in vehicles and equipment in the next three years
- FY11 estimate includes \$600K in vehicles and equipment recapitalization



# QRP Issues



Barracks residents fail to properly segregate recyclables





# QRP Issues



Pizza boxes are no longer recycled because of this

Tobacco spit in cans and bottles

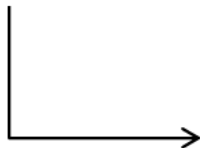
All Recyclables Sorted by Hand by Marine Corps Employees







# MCBJ Environmental Policy *Recommendation - no changes*



(b) (6)



## COMMANDING GENERAL'S ENVIRONMENTAL POLICY STATEMENT I

### 環境方針

The natural environment is a key asset to the training and support mission of Marine Corps Bases Japan (MCBJ). MCBJ has established policies to ensure that our mission is accomplished in ways that are consistent with the best interest of the environment, our service members, and the local community. To this end, we will always strive to protect and preserve the land, water, air, and cultural resources within our cognizance by doing the following:

在日米国海兵隊の訓練及び任務支援において、自然環境は重要な財産です。在日米国海兵隊では、海兵隊の任務が自然環境や軍人及び地域社会にとって最善の形で達成できるよう環境方針を策定しています。そして、下記の方針を実行することにより、海兵隊施設内の土地、水、大気等の資源及び文化財を保護及び保全していくことに常に努めます。

在日米国海兵隊は、

- Complying with applicable Japan Environmental Governing Standards (JEGS)  
在日米軍環境管理基準 (JEGS) を順守します。
- Implementing pollution prevention initiatives and waste minimization programs  
汚染防止に積極的に取り組み、廃棄物の減量化プログラムを実行します。
- Implementing energy conservation initiatives  
省エネルギーの自発的な取り組みを実行します。
- Communicating environmental commitments to all levels of MCBJ to increase awareness of this policy  
基本方針に対する認識を高めるため、環境対策の公約を在日米国海兵隊の各部門及び階層に周知します。
- Minimizing risk to mission  
環境への負荷を抑えることで、任務に与える影響を最小限にします。
- Reviewing all proposed activities for potential environmental impact  
私達の活動が環境に及ぼす影響を考慮に入れ、全活動計画を検討します。
- Striving to advance our partnership with the local community to continue a proactive environmental program  
積極的な環境プログラムの継続に向けて、地域社会との関係強化に努めます。

MCBJ is committed to sustaining and enhancing operational readiness while complying with all applicable environmental laws and regulations, preventing pollution, and continually improving in environmental performance through an effective Environmental Management System (EMS).

在日米国海兵隊は、作戦即応能力の維持・向上を図る一方、環境関連法規を順守し、汚染防止に努め、効果的な環境マネジメントシステム (EMS) 導入による環境負荷の継続的な軽減に取り組むことを約束します。

Semper Fidelis.

(b) (6)

EMS-01.4

Oct 2009



# FY10 EMS Objectives

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## Objective 1: Reduce the impact of solid waste generation

Target	Status
Develop and publish a guide book detailing procedures on how to minimize the generation and the proper disposal of various types of solid waste	Drafted guidebook, awaiting update to JEGS



# FY10 EMS Objectives



## Objective 2: Reduce electricity use in buildings

Target	Status
Select an Energy Savings Performance Contract (ESPC) contractor by the end of the 3 <sup>rd</sup> quarter	Target achieved
Complete energy audits on 25% of all buildings by the end of the 4 <sup>th</sup> quarter	Completed audits on 10% of required facilities. Auditing training delayed until Oct 2010. Audit plan completed
Complete the installation of advanced electric meters by the end of CY10 to meet the Energy Policy Act (EPACT) of 2005	Approx 200-building network, equipment is arriving, estimate installation to begin in Dec 2010 , completion planned for Sep 2011
Complete all documentation for an Inter-agency agreement with the Department of Energy (DOE) by the end of the 2 <sup>nd</sup> quarter	Still in draft, DoE provided training on Okinawa twice this year



# FY10 EMS Objectives



## Objective 3: Reduce vehicle air emissions and fuel consumption

Target	Status
Reduce vehicle fuel consumption by 3% by the end of FY10	<p>3% reduction not achieved, but Drive Green Campaign did realize targeted goals:</p> <ol style="list-style-type: none"><li>1. Reducing number of fossil fuel vehicles through Right Sizing the Fleet (MCPJ Policy ltr 6-09)</li><li>2. Implementation of anti-idling campaign (MCBJ Policy ltr 6-10)</li><li>3. Maximizing use of The Green Line bus service using Informational / Promotional Campaign</li><li>4. Introduction of 24 Electric Vehicles (EV's) into the Fleet</li><li>5. Monitoring of GME in-service vehicles (Road Master checkpoints ) addressing idling and unofficial use</li></ol>

Enclosure (1)



# FY10 EMS Objectives

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## Objective 4: Reduce impact of leaks and spills from vehicle operations

Target	Status
Develop and implement a procedure to inspect and track spill kit usage in tactical vehicles	Target achieved





# FY11 EMS Objectives & Targets



Objective	Target
1. Reduce the impact of solid waste generation	<p>1. Divert 50% of non-hazardous solid waste from the waste stream by FY15 (FY11 Target: 42%)</p> <p>2. Divert 60% of construction and demolition debris from the waste stream by FY15 (FY11 Target: 52%)</p>
2. Reduce electricity use in buildings	<p>1.Reduce energy intensity of facilities by 37.5% by FY20 using FY03 as baseline (FY11 Target: 3% reduction from FY10)</p> <p>2. Produce or procure 18.3% of energy consumed by facilities from renewable sources by FY20 (FY11 Target: Complete design for ECIP Photovoltaic projects)</p>
3. Reduce vehicle air emissions and fuel consumption	<p>1. Reduce use of petroleum products by vehicle fleets by 30% by FY20 using 2005 as baseline (FY11 Target: 4% from FY10)</p>



# Energy Conservation Update

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- First in DoD to award a DoE Super Energy Savings Performance Contract (ESPC)
  - Clark Energy Group will fund, design, and construct energy conservation projects and receive payment through annual energy savings realized
  - Clark Energy will conduct investment grade audits during Nov-Mar
    - Focus on upgrades (HVAC, boilers, windows, lighting, water, etc.) to approx 200 large buildings
    - Renewable component may include wind turbines, solar panels, and ground source heat pumps
  - Proposal expected by Jul 2011



# Energy Projects Complete



Project Title	Cost	Status	Funding
Thermal coating to Foster Barracks (Bldgs 470 and 473)	\$270K	Data shows approx \$18K/year savings in Bldg 470 where the whole bldg was coated. Testing same coating at Camp Fuji this FY for cold climate conditions.	EIP



# In-Progress Energy Projects



Project Title	Cost	Completion Date	Funding
High efficiency upgrade Sewage Treatment Plant Camp Hansen (Design)	\$266K	Mar 2011	FSRM
Automated billing integrated with advanced metering system	\$330K	Mar 2011	EIP
Advanced metering installed at approx 200 buildings	\$4.1M	Sep 2011	EIP
Wind generator at Bldg 1	\$275K	Dec 2011	EIP
PV installation at the Foster Shoppette (Bldg 464) and Food Court (Bldg 1002)	\$402K	Dec 2011	EIP
Advanced building controls in Bldg 363 and West Pac (Bldg 14)	\$1.1M	Jan 2012	EIP
<b>Total</b>	<b>\$6.473M</b>		



# Proposed Energy Initiatives



Project Name	Cost	FY
Resource Efficiency Manager (REM) contract	\$225K	FY11
GIS analyst for utility management contract	\$200K	FY11
DoE energy management training support	\$200K	FY11
Net-zero study at Ie Shima and JWTC	\$130K	Via Army Corps in Huntsville, Alabama
<b>Total</b>	<b>\$755K</b>	



# Proposed Energy Projects



Priority	Project Title	Cost	Notes	Funding
1	Green roofs (grass, moss) – for two buildings (Bldgs 363 and 225)	\$545K	Design complete FY09, requesting FY11	EIP
2	High efficiency upgrade sewage treatment plant Camp Hansen (Construct)	\$924K (FY11)	Anticipate construction completion by Jun 2012	FSRM
3	Design funds for five electric vehicle solar charging stations	\$2.5M	Anticipating award and construction in FY12	EIP
	<b>Total</b>	<b>\$3.969M</b>		



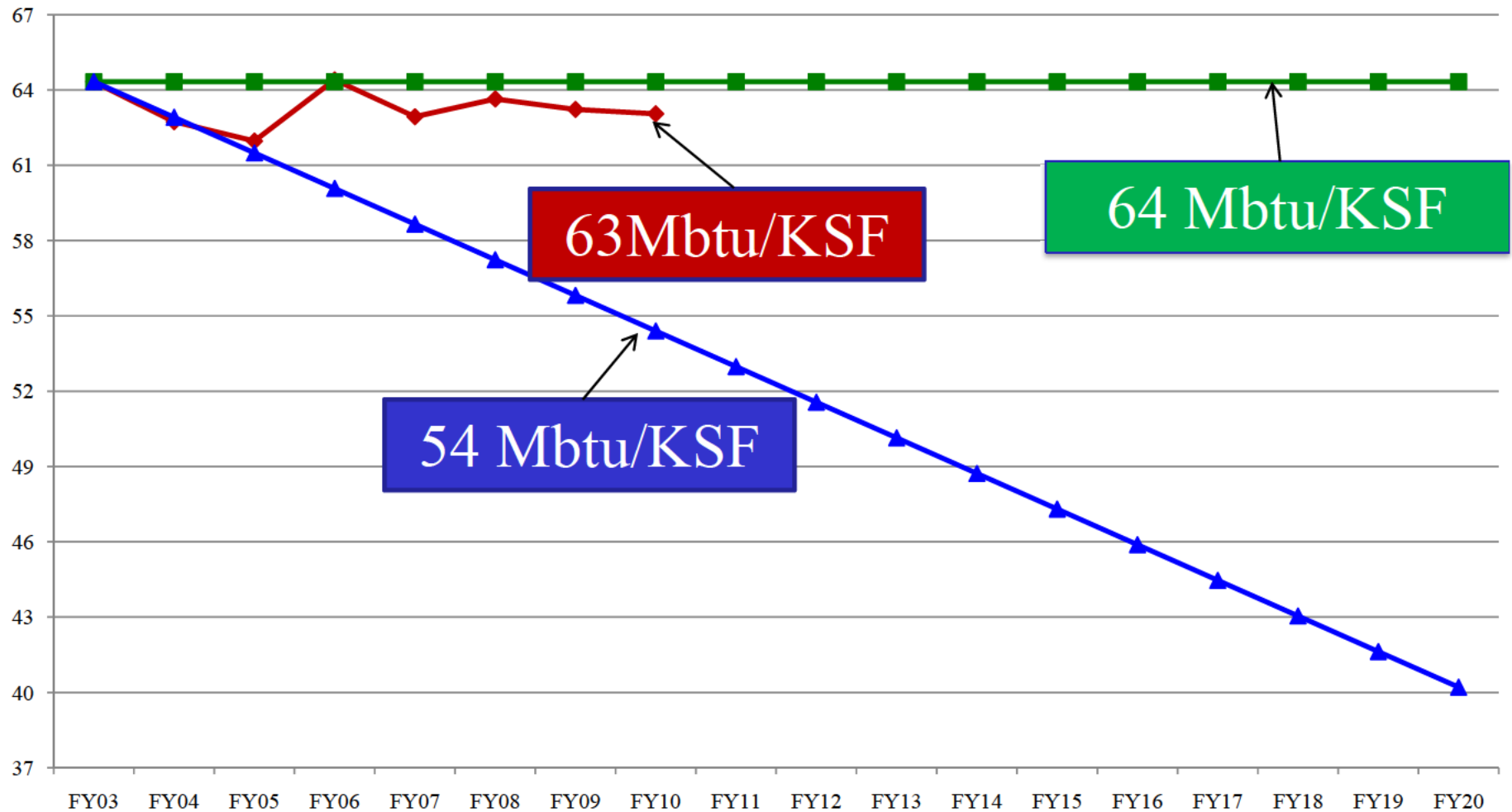
# Proposed Energy Projects



Priority	Project Name	Cost	FY	Program
1	PV roof project Hansen 2118, 2153, 2653	\$7M	FY12	ECIP
2	PV roof project Foster 362, 5634	\$5M	FY12	ECIP
3	PV roof project Courtney 4433, 4450	\$2M	FY12	ECIP
	<b>Total</b>	<b>\$14M</b>		



# Energy Conservation Status







# Marine Corps Energy Progress

(Data from HQMC)



## % Reduction vs. 2003 Baseline

MCB QUANTICO	-32.08%
MCAGCC TWENTYNINE PALMS	-30.45%
MCRD PARRIS ISLAND	-21.84%
MCAS BEAUFORT	-21.36%
MCSF BLOUNT ISLAND	-18.58%
MCAS YUMA	-15.13%
MCAS CHERRY PT	-14.20%
MCB CAMP PENDLETON	-11.38%
MCAS MIRAMAR	-10.19%
MCB HAWAII	-5.65%
MCB CAMP LEJEUNE	-5.50%
MCLB ALBANY	-4.21%
MCB CAMP BUTLER	-1.16%
MCRD SAN DIEGO	3.39%
MCAS IWAKUNI	6.59%
MCLB BARSTOW	67.54%

## MBTU / KSF

USMC BLCMD	41.36
MCAS MIRAMAR	51.17
MCB HAWAII	55.63
MCB CAMP PENDLETON	58.65
MCLB ALBANY GA	61.99
MCAGCC TWENTYNINE PALMS	63.46
MCB CAMP BUTLER	63.58
MCAS YUMA	73.80
MCAS BEAUFORT SC	74.61
MCLB BARSTOW	74.73
MCRD SAN DIEGO	111.18
MCCDC QUANTICO	113.45
MCAS CHERRY PT	119.62
MCAS IWAKUNI	132.76
MCB CAMP LEJEUNE	137.41
MCRD PARRIS ISLAND	156.25



# Marine Corps Energy Progress

(Data from HQMC)



## MBTUs

MCB CAMP LEJEUNE	2,838,319	27.64%
MCB CAMP BUTLER	1,175,920	11.45%
MCB CAMP PENDLETON	971,839	9.46%
MCB QUANTICO	791,217	7.70%
MCAS CHERRY PT	720,811	7.02%
MCRD PARRIS ISLAND	598,288	5.83%
MCAS IWAKUNI	530,763	5.17%
MCLB ALBANY	405,879	3.95%
MCAGCC 29 PALMS	381,304	3.71%
MCB HAWAII	341,961	3.33%
MCRD SAN DIEGO	283,169	2.76%
MCAS MIRAMAR	281,755	2.74%
MCLB BARSTOW	252,824	2.46%
MCAS YUMA	198,754	1.94%
MCAS BEAUFORT	191,218	1.86%
MCAS CAMP PENDLETON	61,587	0.60%
MARBKS 8th&I	47,239	0.46%
BLOUNT ISLAND	37,843	0.37%
MWTC BRIDGEPORT	37,303	0.36%
CAMP ALLEN	20,085	0.20%
FIRST MCD GARDEN CITY	19,788	0.19%

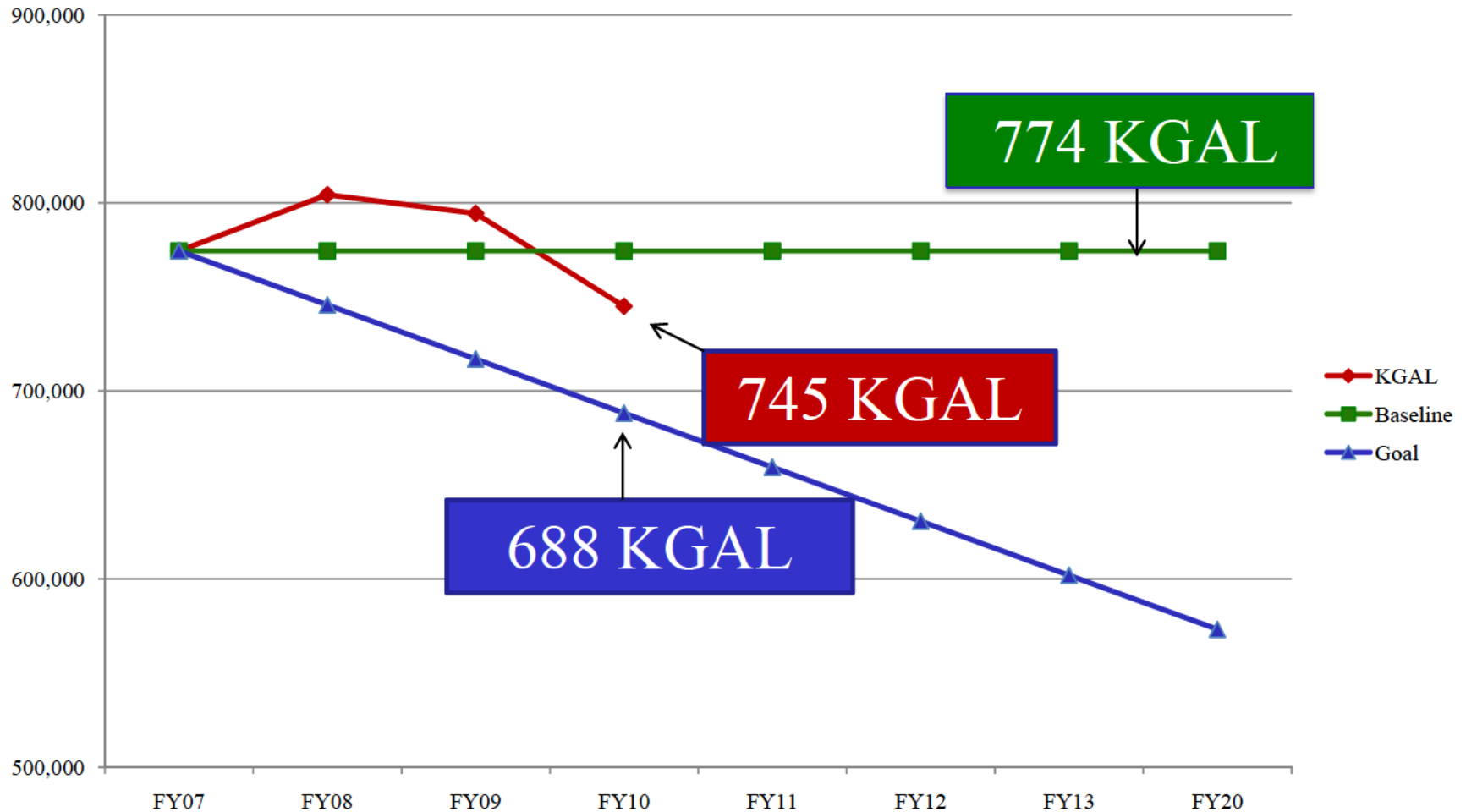
## Cost

MCB CAMP BUTLER	\$49,463,993	23.28%
MCB CAMP LEJEUNE	\$38,271,607	18.01%
MCB HAWAII	\$19,701,772	9.27%
MCB CAMP PENDLETON	\$15,876,659	7.47%
MCB QUANTICO	\$13,732,541	6.46%
MCAS IWAKUNI	\$11,849,692	5.58%
MCAS CHERRY PT	\$10,492,624	4.94%
MCLB BARSTOW	\$9,168,794	4.32%
MCAS MIRAMAR	\$8,628,284	4.06%
MCRD PARRIS ISLAND	\$6,916,029	3.26%
MCLB ALBANY	\$5,833,365	2.75%
MCRD SAN DIEGO	\$4,670,216	2.20%
MCAS YUMA	\$3,850,563	1.81%
MCAS BEAUFORT	\$3,615,699	1.70%
MCAGCC 29 PALMS	\$3,432,089	1.62%
MCAS CAMP PENDLETON	\$2,408,157	1.13%
MARBKS 8th&I	\$1,466,964	0.69%
BLOUNT ISLAND	\$1,041,034	0.49%
MWTC BRIDGEPORT	\$1,008,426	0.47%
CAMP ALLEN	\$587,764	0.28%
FIRST MCD GARDEN CITY	\$437,622	0.21%

Enclosure (1)



# Water Conservation Status





# How Commanders Can Help

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- Emphasize the following to your units:
  - Maintain clean, well managed hazardous material storage and hazardous waste accumulation areas
  - Clean small spills quickly; call 911 for large spills
  - Properly dispose of all waste prior to deployment
  - Support recycling program in living and work areas, especially in barracks
- Support MCBJO 5090.3A
  - Air conditioning set at 78° -80° C
  - Turn off computers and other electronics at end of day
  - Space heaters prohibited unless authorized by FE/Fuji FMO
- Maintain close contact with your camp/station environmental staff





# Questions?



ATTENDANCE ROSTER  
CEEMRB MEETING  
23 NOV 2010

(b) (6) NAME	SIGNATURE	UNIT	PHONE	E-MAIL
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ATTENDANCE ROSTER  
CEEMRB MEETING  
23 NOV 2010

(b) (6)

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ATTENDANCE ROSTER  
CEEMRB MEETING  
23 NOV 2010

NAME	SIGNATURE	UNIT	PHONE	E-MAIL
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(b) (6)



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23 NOV 2010

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NAME	SIGNATURE	UNIT	PHONE	E-MAIL
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